

REMARKS

Claims 1 and 36 are amended. Claims 1-47 are pending in the application.

Claim 36 is objected to, with the Examiner alleging that "common etching" was referring to "conventional prior art techniques." However, the Examiner is mistaken. Clearly, the "common etching" step referred to was in conjunction with the normal definition of belonging to or being shared by all members of a group, for example, such as "a bunch of people being buried in a common grave." Regardless, claim 36 has been amended for clarification to delete the objected to language, and substitute therefore "said plasma etching in "a)" and in "b)" being conducted in an etching step common to "a)" and "b)"". Accordingly, no change in claim scope has occurred by the amendment. Accordingly withdrawal of this claim rejection is requested.

Independent claim 1 stands rejected as being anticipated over U.S. Patent No. 6,340,435 to Bjorkman et al. Applicant disagrees that its original claim 1, and claim 1 as herein amended, is anticipated by Bjorkman, and requests reconsideration.

Specifically, claim 1 recites "plasma etching through at least a portion of the silicon carbide comprising layer received over the semiconductor substrate using a gas chemistry comprising oxygen and hydrogen." Such is not disclosed, nor suggested, by Bjorkman et al. The Examiner asserts that Bjorkman teaches using a hydrogen source selected from a group of compounds relying upon col.15, ln.67 – col.16, ln.2. However, the Examiner's citation ignores the

immediately preceding sentence where it is stated that such is with respect to etching a silicon dioxide layer (see, col.15, Ins.63-65). Accordingly, the relied upon language in the anticipation rejection is with respect to etching of a silicon dioxide layer, not a silicon carbide comprising layer as Applicant recites in independent claim 1.

Further, the Examiner asserts that, "wherein the CVD is plasma enhanced and wherein the oxygen in [sic] derived from the group consisting of O₂, O₃, NO_x, CO, CO₂ and mixtures thereof." The Examiner does not provide a citation for the alleged teachings. Nevertheless, the statement which the Examiner makes is with respect to "CVD," and Applicant's claim language is with respect to plasma etching through at least a portion of a silicon carbide comprising layer. The cited Bjorkman et al. reference is not seen to disclose such in the context of Applicant's claim 1.

The Examiner's attention is directed to col.7, Ins.1-12, and col.8, Ins. 48-59 where etching of silicon carbide barrier layers 14 and 46 is occurring. Such there discloses etching of the silicon carbide barrier layer utilizing argon, CO, and one or more gases selected from the group consisting of CF₄, C₂F₆, and C₄F₈. Such does not constitute plasma etching using a gas chemistry comprising oxygen and hydrogen.

For the foregoing reasons, Bjorkman et al. is not there or elsewhere seen to teach the combinational aspects of the claim 1 processing which include plasma etching through at least a portion of the silicon carbide comprising layer received over the semiconductor substrate using a gas chemistry comprising

oxygen and hydrogen. Accordingly, the anticipation rejection is seen to be in error, and should be withdrawn. Action to that end is requested.

Independent claim 12 recites "plasma etching within the contact opening through the silicon carbide comprising layer using a gas chemistry comprising oxygen and hydrogen." For essentially the same reasons argued above with respect to claim 1, claim 12 is not anticipated by the Bjorkman et al. reference, and the rejection should be withdrawn. Action to that end is requested.

Independent claim 36 also recites plasma etching through the silicon carbide comprising layer using a gas chemistry comprising oxygen and hydrogen. For essentially the same reasons argued above with respect to independent claims 1 and 12, Bjorkman et al. does not disclose such limitation, and accordingly claim 36 should be allowed.

Further, claim 36 recites both plasma etching the silicon carbide comprising layer using a gas chemistry comprising oxygen and hydrogen, and plasma etching all resist from the substrate in an etching step which is common in achieving both. Bjorkman et al. clearly does not disclose such. Specifically, Figs. 1E and 1F as shown and described in col.7, lns.1-12 show etching occurring through silicon carbide layer 14 in Fig. 1E and then a separate/subsequent removal of photoresist 24 in Fig. 1F. Accordingly, such does not disclose removing the photoresist and etching through the silicon nitride comprising layer using an etching chemistry and an etching step which is common to achieve both such stated processings and objectives. No other

portion of Bjorkman et al. is seen to disclose this aspect of Applicant's independent claim 36.

Accordingly, claim 36 is not anticipated for either of the above-stated reasons. Accordingly, this rejection should be withdrawn, and action to that end is requested.

Applicant's dependent claims should be allowed as depending from allowable base claims, and for their own recited features which are neither shown nor suggested in the cited art. The cited Nguyen et al. reference only provides teachings relative to cleaning reaction chambers, not etching silicon carbide layers on semiconductor substrates which would be received within reaction chambers. Accordingly, its teachings are not material to Applicant's pending claims.

This application is believed to be in immediate condition for allowance, and action to that end is requested.

Respectfully submitted,

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